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EXAMINER

HORTON, YVONNE MICHELE

ART UNIT PAPER NUMBER

3635

DATE MAILED: 04/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/621,905

Applicant(s)

CORWIN, THOMAS N.

Examiner

Yvonne M. Horton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>see attachment</u> . |

DETAILED ACTION***Allowable Subject Matter***

The indicated allowability of claim 12 is withdrawn in view of a more careful review of the reference(s) to MULFORD. Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent #4,658,552 to MULFORD. MULFORD discloses the use of a building including an exterior wall structure, as shown in Figures 2 and 3 including an exterior sheathing (32) and (54), an interior wall (30,60), at least one layer of thermal wall insulation material (52) between the exterior sheathing (32) and (54) and the interior wall (30,60), the layer of thermal wall insulation material (52) being spaced away from the exterior sheathing (32) and (54) to provide a wall air gap (G) and (58,62) between the insulation (52) and exterior sheathing (54); a roof structure including a roof deck (96), an interior ceiling (100), a layer of thermal roof insulation material (104) between the roof deck (96) and the interior ceiling (100), the layer of thermal roof insulation material (104) being spaced away from the roof deck (96) to provide a roof air gap (as between 90 and 102 column 6, line 6-10) between the layer of thermal insulation (104) and the roof deck (96); the wall air gap (G) and (58,62) being in fluid communication, column 6, line 6-15, with the roof air gap (between 90 and 102); a roof vent (column 6,

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line 14 "out to the atmosphere") to allow air to flow freely from the roof air gap (between 90 and 102) to an outside space; and an air ventilation grid (10) having an attachment flange (14) for attachment to the sill (S) through inner sheathing (28) and a support flange (16) that supports the exterior sheathing (32) and (54) wherein the ventilation grid (10) is located at a lower end (see Figure 2 and 3) of the wall air gap (58,62), the air ventilation grid (10) having a plurality of openings (12) that are sufficiently small to prevent insects from entering the wall air gap (column 1, line 63-66), but sufficiently large to allow the outside air to freely enter into the wall air gap (G) and (58,62), whereby air is allowed to freely flow by natural convection upward from the outside through the ventilation grid (10), upwardly through the wall air gap (G) and (58,62), upwardly along the roof air gap (between 90 and 102), and out of the roof vent, column 2, lines 30-33. Regarding claim 10, the layer of the thermal wall insulation material (52) is located adjacent the interior wall (30) and (60).

Claims 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4,658,552 to MULFORD. The structure of MULFORD inherently discloses the process for constructing a building including the steps of constructing on a foundation (F), see the marked attachment, an exterior sheathing (32) and (54), an interior wall (30) and (60), at least one layer of thermal wall insulation material (52) between the exterior sheathing (32) and (54) and the interior wall (30) and (60), the layer of thermal wall insulation material (52) being spaced away from the exterior sheathing (32) and (54) to provide a wall air gap (G) and (58,62) between the insulation (52) and exterior sheathing

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(32) and (54); constructing a roof structure including a roof deck (96), an interior ceiling (100), a layer of thermal roof insulation material (104) between the roof deck (96) and the interior ceiling (100), the layer of thermal roof insulation material (104) being spaced away from the roof deck (96) to provide a roof air gap (as between 90 and 102 column 6, line 6-10) between the layer of thermal insulation (104) and the roof deck (96); the roof air gap (as between 90 and 102) and the wall air gap (G) (58,62) being in fluid communication, column 6, line 6-15, to allow air to flow freely from the roof air gap (between 90 and 102) to an outside space; installing a roof vent, column 6, line 14; installing an air ventilation grid (10) having an attachment flange (14) for attachment to the sill (S) through inner sheathing (28) and a support flange (16) that supports the exterior sheathing (32) and (54) wherein the ventilation grid (10) is located at a lower end (see Figure 2 and 3) of the wall air gap (G) (58,62), the air ventilation grid (10) having a plurality of openings (12) that are sufficiently small to prevent insects from entering the wall air gap (column 1, line 63-66), but sufficiently large to allow the outside air to freely enter into the wall air gap (G) and (58,62), whereby air is allowed to freely flow by natural convection upward from the outside through the ventilation grid (10), upwardly through the wall air gap (G) and (58,62), upwardly along the roof air gap (between 90 and 102), and out of the roof vent, column 2, lines 30-33.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 2–4,6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,658,552 to MULFORD in view of US Patent #6,745,531 to EGAN. MULFORD discloses the basic claimed structure except for the insulation material including foam spaced from the interior wall and a layer of fibrous material disposed between the foam and the interior wall. EGAN teaches that it is known in the art to have a rigid foam layer (13) spaced from the interior wall (18) and a layer of fibrous material (17,19) disposed between the foam and the interior wall (18). Hence, it would have been obvious to one having ordinary skill in the art to provide the structure of MULFORD with the rigid foam layer and layer of fibrous material as the insulating materials in order to enhance the ventilation of gases and water between the wall thereby preventing moisture from being retained and remaining trapped within the wall while further increasing the thermal properties of the building. Regarding claims 3 and 4, the sheathing (54) of MULFORD is a polymeric foam mat, column 6, lines 16-23. In reference to claim 6, the rigid insulation of EGAN is polystyrene, column 9, line 49. Regarding claim 7, the layer of fibrous material of EGAN includes glass fibers, column 9, line 51.

Claims 5,8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,658,552 to MULFORD. MULFORD discloses the basic claimed structure except for detailing the size of the openings formed in the ventilation grid, and except for detailing the size of the wall and roof gaps. It would have been obvious to one having ordinary skill in the art at the time the

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invention was made to select a ventilation opening size, roof gap and wall gap suitable for the use intended as an obvious matter of design choice. For instance, if the structure requires a large draft pull then larger sized wall and roof gaps would be sufficient. In the event of the ventilation openings, larger openings obviously would allow the passage of larger air passage; however, the larger openings would also allow for the passage of more debris and insects.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent #4,658,552 to MULFORD in view of US Patent #6,679,010 to HONDA. MULFORD discloses the basic claimed structure except for the use of a thin moisture barrier. HONDA teaches that it is known in the art to provide a wall structure with a moisture barrier (26). Hence, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the structure of MULFORD with the moisture barrier of HONDA in order to enhance the structure's ability to resist damage to exposure from moisture.

Allowable Subject Matter

Claim 13 is allowed.

Response to Arguments

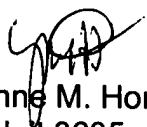
Applicant's arguments with respect to the claims have been considered but are moot in view of the newly revised ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yvonne M. Horton whose telephone number is (703) 308-1909. The examiner can normally be reached on 6:30 am - 3:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl D. Friedman can be reached on (703) 308-0839. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Yvonne M. Horton
Art Unit 3635
3/7/05

